

**METHOD AND APPARATUS FOR PROVIDING  
A BALLISTIC MAGNETORESISTIVE SENSOR IN  
A CURRENT PERPENDICULAR-TO-PLANE MODE**

**ABSTRACT**

5 A method and apparatus for providing a ballistic magnetoresistive sensor in a current perpendicular-to-plane mode is disclosed. A nickel nano-contact is provided in a current perpendicular-to-plane sensor. The nano-contact switches its magnetization with the switching of the free layer to provide an increase in resistance that is used to detect magnetically recorded data.

10